

AMENDMENT TO THE CLAIMS

1. (Currently Amended) A method for requesting channel quality information (CQI) in a base station of a wireless portable-Internetcommunication system, comprising:

- a) ~~a base station~~ determining timing of a channel quality information request;
- b) requesting an automatic repeat request acknowledgement (ARQ-ACK) message of downlink data upon requesting the CQI from a subscriber station;
- c) allocating a radio resource for the ARQ-ACK message and ~~the~~ a report of the channel quality report information to the subscriber station;
- d) receiving information on the ARQ-ACK message and the channel quality report from the subscriber station; and
- e) determining a modulation and coding level of downlink data by extracting the channel quality report information from the ARQ-ACK.

2. (Original) The method for reporting the channel quality information of claim 1, further comprising:

- a-1) determining whether uplink data to be received by the base station exists, after a);
- b-1) transmitting a piggyback identifier of uplink data to be used to request the CQI to the subscriber station when the uplink data exists;
- c-1) allocating a radio resource for reporting the CQI to the subscriber station;
- d-1) receiving the channel quality report information piggybacked on the uplink data; and
- e-1) extracting the CQI from the uplink data, and determining a modulation and coding level of downlink data based on the reported CQI.

3. (Currently Amended) The method for reporting the channel quality information of claim 2, further comprising:

- a-2) determining whether the ARQ-ACK message exists in a-1), when no uplink data to be received by the base station exists;
- b-2) transmitting ~~ana~~ a CQI REQuest (REP_REQ) medium access control (MAC) message to the subscriber station when no ARQ-ACK message exists;

c-2) allocating the radio resource for reporting the CQI to a dedicated channel;
d-2) receiving the REP_REQ MAC message through the dedicated channel; and
e-2) determining a modulation and coding level of downlink data based on the reported CQI.

4. (Previously Presented) The method for reporting the channel quality information of Claim 1, wherein the CQI is a mean value or standard deviation of a carrier to interference noise ratio (CINR) of the downlink.

5. (Currently amended) The method for reporting the channel quality information of Claim 1, wherein information on the radio resource allocated for reporting the CQI is transmitted while being included in the UpLink-map (UL-MAP) of a downlink frame.

6. (Previously Presented) The method for reporting the channel quality information of Claim 1, further comprising: controlling the period and frequency of the CQI based on the received CQI.

7. (Original) The method for reporting the channel quality information of claim 4, further comprising:
allocating a radio resource for reporting the CQI at the front time slot of the uplink resource for the subscriber station having the larger standard deviation of the CINR.

8. (Currently Amended) A method for reporting channel quality information in a subscriber station of a wireless portable Internet communication system, comprising:

a) determining whether transmission of an ARQ-ACK message and a Channel Quality Information (CQI) REQuest Media Access Control (REP_REQ MAC) message ~~REP-REQ~~ is provided from a base station;

b) updating the two values into latest values by measuring the CQI when the transmission is provided;

- c) acknowledging a radio resource allocated for the ARQ-ACK message and the CQI;
- and
- d) transmitting the CQI to a base station while being included in the ARQ-ACK message.

9. (Original) The method for reporting the channel quality information of claim 8, further comprising:

- a-1) determining whether a piggyback identifier for transmitting the CQI is transmitted from the base station;
- b-1) measuring the CQI and updating the same into the latest values when the piggyback identifier is transmitted;
- c-1) acknowledging a radio resource allocated for the CQI among the radio resources piggybacked on the uplink data; and
- d-1) transmitting the CQI piggybacked on the uplink data to the base station.

10. (Original) The method for reporting the channel quality information of claim 8, further comprising:

- a-2) determining whether the REP_REQ MAC message is transmitted from the base station;
- b-2) measuring the CQI and updating the same into the latest value when the REP_REQ MAC message is transmitted;
- c-2) acknowledging a radio resource of a dedicated channel allocated for the CQI report;
- and
- d-2) transmitting the CQI through the dedicated channel to the base station.

11. (Previously Presented) The method for reporting the channel quality information of Claim 8, wherein the CQI is a mean value or standard deviation of a carrier to interference noise ratio (CINR) of the downlink.

12. (Currently Amended) The method for reporting the channel quality information of Claim 8, wherein the radio resource allocation information for reporting the CQI transmitted to the base station is included in ~~the~~ an UpLink-map (UL-MAP) ~~UP-MAP~~ of an uplink frame.

13. (Cancelled)

14. (New) A wireless communication system, comprising:
a base station configured to determine timing of a channel quality information (CQI) request, request an automatic repeat request acknowledgement (ARQ-ACK) message of downlink data upon requesting a CQI from a subscriber station, and allocate a radio resource for the ARQ-ACK message and a report of the channel quality information to the subscriber station;
and

a subscriber station configured to transmit information on the ARQ-ACK message and the channel quality report to the base station,

wherein the base station determines a modulation and coding level of downlink data by extracting the channel quality report information from the ARQ-ACK message.

15. (New) The system of claim 14, wherein the subscriber station measures the CQI and updates the CQI into a latest value when the base station requests the ARQ-ACK message and the CQI.

16. (New) The system of claim 14, wherein the base station determines whether uplink data to be received exists, transmits a piggyback identifier of uplink data to be used to request the CQI to the subscriber station when the uplink data exists, allocates a radio resource for reporting the CQI to the subscriber station, receives the channel quality report information piggybacked on the uplink data from the subscriber station, extracts the CQI from the uplink data, and determines a modulation and coding level of downlink data based on the reported CQI.

17. (New) The system of claim 16, wherein the base station determines whether the ARQ-ACK message exists when no uplink data to be received exists, transmits a CQI REQuest

(REP_REQ) medium access control (MAC) message to the subscriber station when no ARQ-ACK message exists, allocates the radio resource for reporting the CQI to a dedicated channel, receives the REP_REQ MAC message through the dedicated channel, and determines a modulation and coding level of downlink data based on the reported CQI.

18. (New) The system of claim 14, wherein the CQI is a mean value or standard deviation of a carrier to interference noise ratio (CINR) of the downlink.

19. (New) The system of claim 18, wherein the base station allocates a radio resource for reporting the CQI at the front time slot of the uplink resource for the subscriber station having the larger standard deviation of the CINR.

20. (New) The system of claim 14, wherein information on the radio resource allocated for reporting the CQI is transmitted while being included in the UpLink-map (UL-MAP) of a downlink frame.

21. (New) The system of claim 14, wherein the base station controls the period and frequency of the CQI based on the received CQI.